CLAIMS

What is claimed is:

1. A method of diagnosing a fault between a subscriber and a network comprising the steps of:

receiving, with a diagnostic unit, a communication from a subscriber experiencing a problem with a network;

determining configuration information of said subscriber from said communication; and

forwarding said configuration information to a selected network element.

2. The method of claim 1 wherein said step of receiving comprises utilizing at least one Fault Tolerant Protocol stack to allow communication between said subscriber and said diagnostic unit for diagnosis purposes.

3. The method of claim 2 wherein said at least one Fault Tolerant Protocol stack permits communication with said subscriber when said subscriber is misconfigured.

4. The method of claim 1 wherein said selected network element comprises a service provider associated with at least a portion of the network.

5. The method of claim 1 wherein said step of forwarding comprises forwarding said configuration information electronically.

6. The method of claim 2 wherein said step of receiving further comprises providing communication with said network through said at least one Fault Tolerant Protocol stack and said diagnostic unit.

7. The method of claim 1 wherein said step of determining configuration information includes obtaining an identification of said subscriber.

8. The method of claim 7 wherein said step of obtaining an identification of said subscriber includes determining a username of said subscriber.

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9. The method of claim 8 wherein said step of obtaining an identification of said subscriber includes obtaining at least one of authentication information associated with said username, a phone number of said subscriber and a time stamp.

10. The method of claim 1 wherein said step of determining includes the step of emulating with said diagnostic unit at least one of login services to said subscriber, authentication services to said subscriber, e-mail services to said subscriber and the Internet to said subscriber.

11. The method of claim 1 wherein said step of determining includes the step of analyzing with said diagnostic unit at least one of:

(a) data sent by said subscriber; and

(b) the format of data sent by said subscriber.

12. The method of claim 1 wherein said step of determining includes the step of negotiating a protocol between said subscriber and said diagnostic unit, said protocol selected from the group consisting of modem training, network control protocols, authentication protocols, compression protocols and upper layer protocols.

13. The method of claim 1 wherein said step of determining includes the step of authenticating a password supplied by said subscriber for an Internet Service Provider (ISP) Net.

14. The method of claim 1 wherein said step of determining further comprises the steps of:

sending an e-mail to a diagnostic unit from said subscriber; and

receiving an e-mail from said diagnostic unit by said subscriber.

15. The method of claim 7 further comprising the step of identifying said subscriber by said identification information within a trouble ticketing system of said service provider.

16. The method of claim 15 further comprising the steps of prioritizing said subscriber by said identification information within said trouble ticketing system of said service provider.

17. A method of providing network access for a subscriber comprising the steps of:

    providing a diagnostic unit in communication with a network;

    receiving, with said diagnostic unit, a communication from a subscriber unable to communicate with a desired network element; and

    allowing communications between said subscriber and said diagnostic unit, said subscriber communicating with said desired network element through said diagnostic unit.

18. The method of claim 17 wherein said step of allowing comprises utilizing at least one fault tolerant protocol stack.

19. A diagnostic unit comprising:

    a processor in communication with a subscriber and with a network; and

    storage associated with said processor, said storage capable of storing instructions for causing said processor to receive data from said subscriber and to determine configuration information of said subscriber.

20. The diagnostic unit of claim 19 wherein said instructions further include instructions for causing said processor to forward said configuration information to a selected network element.

21. The diagnostic unit of claim 19 wherein said instructions further include instructions for accepting data from said subscriber in a source protocol inconsistent with a network element protocol of a selected network element; establishing a communication link with the subscriber and sending an indication of the data received from the subscriber to the selected network element in a protocol consistent with the network element protocol.